

**REMARKS**

Claims 1-24 were originally filed in the present application.

Claims 1-24 are pending in the present application.

Claims 1-5, 11-15 and 21-24 were rejected in the February 21, 2008 Office Action.

Claims 6-10 and 16-20 were objected to in the February 21, 2008 Office Action.

Claims 1, 11 and 21 have been amended.

No claims have been allowed.

Claims 1-24 remain in the present application.

Reconsideration of the claims is respectfully requested.

**I. SPECIFICATION**

Paragraph [006] on page 4 of the specification was objected to because the acronym TCAM was not defined prior to its first use. Paragraph [006] has been amended to correct this informality.

**II. CLAIMS OBJECTIONS**

Claims 1 and 11 were objected to because of a minor informality in Claims 1 and 11. Claims 1 and 11 have been amended to correct this informality.

**III. CLAIM REJECTIONS UNDER 35 U.S.C. § 103**

Claims 1-5 and 21-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over

U.S. Patent Publication No. 2004/0114587 to *Huang, et al*, hereinafter “Huang” in view of “Survey and Taxonomy of IP Address Lookup Algorithms” to *Ruiz-Sanchez, et al*, hereinafter “Ruiz-Sanchez”. The Applicant respectfully traverses the rejection.

Claims 11-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang in view of Ruiz-Sanchez, and in further view of U.S. Patent 6,496,510 to *Tsukakoshi, et al*, hereinafter, “Tsukakoshi”.

Applicants respectfully traverse the rejections.

In ex parte examination of patent applications, the Patent Office bears the burden of establishing a prima facie case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a prima facie basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a prima facie case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A prima facie case of obviousness is established when the teachings of the prior art itself

suggest the claimed subject matter to a person of ordinary skill in the art. In re Bell, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

Applicants respectfully submit that the cited references do not teach or suggest all the claim limitations of Claim 1. Specifically, Claim 1 recites, "at least one consecutive symbols table associated with said first stage of said trie tree search table."

The Office Action appears to suggest that the skip count mentioned in Paragraphs [0049] to [0051] of Huang refer to consecutive symbols. However, the cited sections of Huang state that the skip count refers to strides of data. For example, Paragraphs [0048] to [0049] of Huang state:

[0048] For purposes of explanation assume that bitmap data field 305 holds exactly one stride of data. For a stride width of four (4), the bitmap width is sixteen (16) (i.e., two (2) to the power of four (4)).

[0049] The present invention comprises first trie table entry 320 and second trie table entry 340. First trie table entry 320 comprises a "pattern" data field 325, a "pointer" data field 330, and a "code" data field 335 as shown in FIG. 3B. First trie table entry 320 indicates a path compression entry with **a skip count of n strides**. For example, with a bitmap width of sixteen (16) and a stride width of four (4), four (4) strides of pattern can be held in one node (i.e., four (4) strides times four (4) bits

per stride equals sixteen (16) bits). In this case the skip count is three (3). That is, there are three (3) skipped four (4) bit strides in addition to the normal four (4) bit stride for the last stage. (Emphasis added by Applicants.)

By contrast, a consecutive symbols table is described in Paragraphs [0062] to [0066] of the present disclosure, for example, as follows:

[0062] According to an exemplary embodiment of the present invention, at least one consecutive symbols table may be associated with each stage of trie tree lookup tables 260. By way of example, a first Consecutive 0 Symbols table may be associated with the first stage of IPv6 trie tree lookup tables 262. The first Consecutive 0 Symbols table is searched whenever a string of consecutive 4-bit symbols equal to 0000 is detected that begins with the 4-bit symbol used to search the first stage of IPv6 trie tree lookup tables 262.

...

[0066] Accordingly, similar Consecutive 0 Symbols tables may be associated with each stage in IPv6 trie tree lookup tables 262 and with each stage in IPv4 trie tree lookup tables 261. However, it may be desirable to detect consecutive symbols other than **consecutive 0 symbols**. Thus, each stage of IPv6 trie tree lookup tables 262 and each stage of IPv4 trie tree lookup tables 261 may be associated with **tables of consecutive 1 symbols, consecutive 2 symbols, consecutive 3 symbols, and so forth**. (Emphasis added by Applicants.)

Applicants are unable to find any teaching or suggestion that the stride of data of Huang refers to consecutive 0 symbols, consecutive 1 symbols, consecutive 2 symbols, consecutive 3 symbols, and so forth.

Accordingly, Applicants respectfully submit that Claim 1 is patentable over the cited references and respectfully request the Examiner to withdraw the § 103 rejection with respect to Claim 1.

Independent Claims 11 and 21 recite limitations analogous to the novel limitations

emphasized above in traversing the rejection of Claim 1 and, therefore, also are patentable over the cited references. Additionally, Claims 2-10, 12-20, and 22-24 depend from Claims 1, 11, and 21 respectively, and include all the limitations of their respective base claims. As such, Claims 2-10, 12-20, and 22-24 also are patentable over the cited references.

Accordingly, the Applicants respectfully request the Examiner to withdraw the § 103 rejections with respect to Claims 2-24.

#### IV. ALLOWABLE SUBJECT MATTER

The Examiner objected to Claims 6-10 and 16-20 as being dependent upon a rejected base claim, but suggested that Claims 6-10 and 16-20 would be allowable if it were rewritten in independent form including all the limitations of the base and intervening claims. Applicants thank the Examiner for this suggestion but elect not to rewrite Claims 6-10 and 16-20 at this time.

**CONCLUSION**

As a result of the foregoing, the Applicant asserts that the remaining claims in the Application are in condition for allowance, and respectfully requests that this Application be passed to issue. If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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